

ABSTRACT

5 A process for producing high purity 1,1,1,2-
tetrafluoroethane and/or pentafluoroethane by the step of
purifying a crude product obtained by reacting
trichloroethylene and/or tetrachloroethylene with
hydrogen fluoride comprised of a main product including
1,1,1,2-tetrafluoroethane and/or pentafluoroethane,
hydrogen fluoride as an azeotropic component with the
10 main product, and impurity ingredients including at least
an unsaturated compound, wherein said purifying step
includes a step of bringing a mixture obtained by newly
adding hydrogen fluoride into said crude product into
contact with a fluorination catalyst in the vapor phase
15 to reducing the content of the unsaturated compound
contained in said crude product and a distillation step.